

REMARKS

Favorable reconsideration is respectfully requested.

The claims are 12-17.

Claims 12-17 have been rejected under 35 U.S.C. 102(e) as being anticipated by Sato et al. (U.S. 6,479,211), alleging that in columns 1-4, Sato teaches polymers for a photoresist composition, of which polymer 17 meets the limitations of claims 12 and 13. The rejection further points out that this polymer is used in Example 1b in Table 4 with other ingredients comprised in the composition as in claim 14.

Thus, the rejection appears to take the position that, while polymer 17 of Sato consists, as is indicated by the formula (17), of three different types of monomeric units including the lefthand units, middle units and righthand units, each type of these monomeric units corresponds to one of the monomeric units (a1), (a2) and (a3) constituting the polymer as the component (A) in claim 12.

In reply, it is recognized that the lefthand unit in polymer 17 of Sato is encompassed by the monomeric units (a1) when R¹ and R² in (a1) are assumed to be a methyl group and an ethyl group, respectively. It is further recognized that the righthand unit in polymer 17 of Sato is encompassed by the monomeric unit (a3) of claim 12 when R¹ is assumed to be a methyl group.

With regard to the middle unit in polymer 17 of Sato and the monomeric unit (a2) in claim 12, the contention of equivalency in the rejection is definitely in error. While each of the middle units in polymer 17 of Sato and the (a2) unit in claim 12 is derived from a butyrolactone (meth)acrylate monomer, the butyrolactone ring groups linked to the main chain structure of the polymer through the ester linkage in the middle unit of Sato and in the (a2) unit of claim 12 are isomerically different from each other in the position of the lactone carbonyl group. In the former unit (of Sato), namely, the carbonyl group is bonded to the carbon atom adjacent to the carbon atom bonded to the ester linkage. On the other hand, in the latter unit, the carbonyl group on the lactone ring is bonded to the carbon atom at the 3-position relative to the carbon atom bonded to the ester linkage.

Moreover, the molar fraction of the righthand units in polymer 17 of Sato is clearly different from that of the (a3) units in component (A) of claim 12. Namely, Sato discloses at column 103, lines 53-55 that the (molar)ratio of the three types of the monomeric units, i.e. (lefthand units : middle units : righthand units), was 42/48/10, while claim 12 requires that the molar fraction of the (a3) units must be 20-40%.

Thus, it is very clear that the anticipation rejection of claims 12-17 on Sato et al. is untenable.

Moreover, Comparative Example 1 of the present specification discloses an experiment conducted by using a copolymeric resin consisting of 40% by moles of the (a1) units, 20% by moles of the (a3) units and 40% by moles of the same units as the middle units in the polymer 17 of Sato to give inferior results as compared to Example 1 of the present invention. In view of this unobvious advantage, any rejection under 35 U.S.C. 103 on Sato would also be untenable.


With regard to the other ingredients of the claimed composition, as pointed out by the rejection, Sato teaches an onium salt compound as the PAG claimed in claim 14 and a secondary or tertiary aliphatic amine claimed in claims 16 and 17. However, this does not overcome the above discussed deficiencies of Sato.

No further issues remaining, allowance of this application is respectfully requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact undersigned at the telephone number below.

Respectfully submitted,

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